

REMARKS

By this Amendment, Applicants propose to amend claims 1, 3, 10, 12, 14, 22, 36, 37, 40, 41, 44, 45, and 48-50. Support for the proposed amendments to the claims comes from the claims and specification, as originally filed. Accordingly, no new matter is added. Currently, claims 1, 3, 10-12, 14, 20, 22-26, and 30-51 are pending in this application, claims 23-26 and 30-35 having been withdrawn by the Office as directed to a non-elected invention.

Applicant respectfully requests that this Amendment under 37 C.F.R. § 1.116 be entered by the Office, placing at least claims 1, 3, 10-12, 14, 20, 22, and 36-51 in condition for allowance. Applicants submit that the proposed amendments of the claims do not raise new issues or necessitate the undertaking of any additional search of the art by the Examiner, because all of the elements and their claimed relationships were either claimed earlier or inherent in the claims as examined. Therefore, this Amendment should allow for immediate action by the Examiner. More specifically, the amendments to the claims are made solely to address issues relating to improper dependencies and preferred claim language, and do not alter the scope or content of the claims. In addition, the proposed amendments would not result in additional claims being added to the application. Furthermore, the proposed amendments would place the claims in better form for appeal, should an appeal be necessary. Applicants respectfully submit that the proposed amendments were not made earlier in prosecution of the application because the need for the amendments was not evident until issuance of the Final Office Action.

Applicants respectfully point out that the Final Office Action by the Examiner presented some new arguments as to the clarity and scope of the claims. It is respectfully submitted that the

entering of this Amendment would allow Applicants to reply to the Final Office Action and place the application in condition for allowance.

I. *Restriction Requirement*

Claims 23-26 and 30-35 stand withdrawn as directed to a non-elected invention. (Final Office Action at page 2.) Applicants believe that the present amendments place this application in condition for allowance. Applicants therefore request that the Office consider rejoinder of the non-elected claims, and allowance of all of the pending claims in this application.

II. *Claim Objections*

The Office objects to claims 1, 10-12, 20, 22, and 36-51 for inclusion of various commas in the claims. (Final Office Action at page 2.) By this Amendment, Applicants propose to delete various commas in these claims that were identified by the Office as objectionable. Applicants submit that these amendments do not alter the scope or content of the claims, but are merely made to satisfy the Office's requirement for its own preferred language for the claims. More specifically, removal of the commas between the ultimate and penultimate members of a recited group from claims 1, 12, 22, 36, 40, 41, 44, 45, 48, 49, and 50 should not be interpreted as a merging of the penultimate and ultimate members of each recited group (previously defined as two distinct members) into a single member of that group. Likewise, removal of the comma separating a phrase describing characteristics of a group of enzymes from the group itself should not be interpreted as changing the group that the phrase describes.

The Office also objects to claims 10, 22, 41, and 45 as unclear, and suggests its own preferred language. (Final Office Action at pages 2-3.) By this Amendment, Applicants propose to amend the cited claims to include language similar to that suggested by the Office.

Finally, the Office identifies a typographical error in claim 45. (Final Office Action at page 3.) By this Amendment, Applicants propose to delete the misspelled word.

Applicants believe that all of the objections raised by the Office have been addressed. Accordingly, Applicants request that the Office reconsider and withdraw the objections to the claims.

III. *Rejection Under 35 U.S.C. § 112, second paragraph*

The Office rejects claims 3 and 14 under 35 U.S.C. § 112, second paragraph, for depending from cancelled claims 2 and 13, respectively. (Final Office Action at page 4.) By this Amendment, Applicants propose to alter the dependencies of claims 3 and 14 to depend from claims 1 and 12, respectively. Applicants believe that this amendment addresses the Office's rejection. Therefore, Applicants request that the Office withdraw this rejection.

IV. *Rejection Under 35 U.S.C. § 112, first paragraph*

The Office rejects claims 48-51 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement and as lacking enablement. (Final Office Action at pages 4-7.) More specifically, the Office states that the claims are directed to kits comprising Pfu DNA polymerases having mutations outside of those specifically recited in the claims.

Applicants traverse this rejection and submit that the Office has misinterpreted the claim language.

Independent claims 48-50 recite the phrase "at least one amino acid position selected from the group consisting of" followed by a specific recitation of various amino acids/positions within an enzyme. This claim language is standard "Markush"-type language used in U.S. patent practice, and specifically approved by the MPEP (see MPEP § 2173.05(h)). As stated in the MPEP, claiming using a "Markush" group is a manner of claiming "a genus expressed as a group consisting of certain specified materials." Within the context of the present claims, the genus is a mutated enzyme specified as having at least one of a well-defined number of specific mutations. The present claim language, and in particular the phrase "at least one", indicates to those of skill in the art that the genus described by the "Markush" group is not limited to enzymes with single mutations, but to enzymes having one or multiple mutations selected from the recited group. The claims clearly indicate which mutation or mutations are within the group from which mutations may be selected, and the claim language cited by the Office does not relate to mutations outside of those specifically recited in the "Markush" group.

In contrast to the clear language and meaning of the claims, in setting forth the rejection, the Office has parsed the phrase "at least one amino acid position selected from the group consisting of" into two separate and distinct phrases: "at least one" and "amino acid position selected from the group consisting of". Applicants submit that doing so is improper because it is inconsistent with the clear meaning of the claim language. Applicants further submit that parsing the phrase as indicated by the Office would render claims 48-50 unintelligible. Accordingly, the

Office's interpretation of the phrase at issue cannot be correct. Rather, the correct claim interpretation must be that discussed above, which is fully consistent with U.S. law, U.S. patent regulations, and U.S. PTO examination guidelines.

Thus, Applicants submit the Office's interpretation of the language of claims 48-51 is incorrect, and its position on written description and enablement moot. For at least this reason, Applicants request that the Office reconsider and withdraw the rejection of claims 48-51 under 35 U.S.C. § 112, first paragraph.

V. *Double Patenting*

The Office provisionally rejects claims 1, 3, 10-12, 14, 20, 22, and 36-51 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 64-70 and 75-87 of copending U.S. Patent Application No. 10/079,241. (Final Office Action at page 8.) Applicants acknowledge this provisional rejection and request that the Office hold the rejection in abeyance until one or the other application is in condition for allowance. At that time, Applicants will file a Terminal Disclaimer in the application that has yet to be allowed, if necessary at that time.

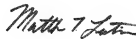
VI. *Conclusion*

Applicants believe that all of the issues raised in the Final Office Action have been addressed herein and overcome. Applicants thus request that the Office enter this Amendment into the official file, reconsider the objections and rejections set forth in the outstanding Final

Office Action, withdraw them, and pass this application to issue in due course. Applicants further request that the Office consider rejoinder of the non-elected claims once the elected claims have been allowed.

If the Office believes that anything further is necessary in order to place this application in even better condition for allowance, Applicants request that their undersigned representative be contacted at the telephone number below. Please grant any extensions of time required to enter this response and charge any additional required fees to Deposit Account No. 50-3740.

Respectfully submitted,
Holly HOGREFE et al.



Date: 14 January 2008

By: _____
Matthew T. Latimer
Reg. No. 44,204

LATIMER, MAYBERRY & MATTHEWS, IP LAW, LLP
13873 Park Center Road
Suite 106
Herndon, VA 20171
703-463-3070